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| EXAMINER |
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GENTRY, DAVID G

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| ART UNIT | PAPER NUMBER |
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2114

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/600,066 | Applicant(s) HASELDEN ET AL. | |
| | Examiner David G. Gentry | Art Unit 2114 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 12 is objected to because of the following informalities: "in" is misspelled as "ine". Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

In claims 9 and 17, the claimed invention is directed to non-statutory subject matter. The specification states that carrier waves are included amongst types of computer readable media (paragraph 33). Carrier waves are considered to be non-statutory subject matter.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Moyer et al. (U.S. Patent No. 4,635,193).

As per claim 1, Moyer discloses a method for debugging an object model comprising:

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exposing a set of breakpoints through a debugging interface of an execution environment (column 2, lines 48-64);

checking a status of the breakpoints at predetermined intervals (column 1, lines 23-37; Note: the status of the breakpoints is checked when the program runs into a breakpoint); and

responding to a request for suspend and resume (column 1, lines 23-37).

As per claim 2, Moyer discloses a method further comprising communicating between a package deployment component and a pluggable component (column 2, lines 11-24).

The peripheral device is taken to be the same as a pluggable component. A package is taken to mean a message concerning a breakpoint.

As per claim 4, Moyer discloses a method further comprising setting the breakpoint in at least one task (column 1, lines 23-37).

Moyer has to do with setting breakpoints, and a breakpoint is a stop in a task.

As per claim 5, Moyer discloses a method further comprising encountering the set breakpoint by the task during task execution (column 1, lines 23-37).

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 10-15 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Yee et al.

As per claim 10, Yee discloses a method for debugging an object model, comprising:

providing an interface manager that communicates with one or more components of the object model (column 4, lines 35-41);

determining a location of breakpoints (column 4, lines 52-56);

executing a runtime to encounter the breakpoints (column 4, lines 52-64).

As per claim 11, Yee discloses a method further comprising executing a package (column 4, lines 52-64).

A package is taken to mean a message concerning a breakpoint.

As per claim 12, Yee discloses a method further comprising executing at least one task resulting from the package execution (column 4, lines 52-64).

The task in Yee is to halt the processor when the breakpoint is reached.

As per claim 13, Yee discloses a method wherein the determining step comprises setting the breakpoint by the interface manager (column 4, lines 52-64).

As per claim 14, Yee discloses a method further comprising suspending an object model component containing a breakpoint upon encountering the breakpoint (column 4, lines 52-64).

As per claim 15, Yee discloses a method further comprising analyzing the object model components while suspended to determine if a runtime problem exists (column 2, lines 16-21).

It is understood that the engineer or programmer is searching for runtime problems.

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As per claim 17, Yee discloses a computer readable medium having computer readable instructions to instruct a computer to

provide an interface manager that communicates with one or more components of an object model (column 4, lines 35-41);

determine a location of a breakpoint (column 4, lines 52-56);

execute a runtime to encounter the breakpoint (column 4, lines 52-64).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moyer in view of Yee et al. (U.S. Patent No. 6,598,178).

Moyer is relied upon for reasons stated in the previous section

As per claim 3, Moyer fails to disclose a method of receiving input for processing by the debugging interface, the input indicative of instructions to execute or deploy a package.

Yee discloses a method of receiving input for processing by the debugging interface, the input indicative of instructions to execute or deploy a package (column 4, lines 35-41).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the debugging interface as described by Yee in the method described by Moyer. It would have been obvious because the debugging interface allows the peripheral device to talk to the processor and notify it of breakpoints (column 4, lines 35-41).

As per claim 6, Moyer fails to disclose a method of communicating the breakpoint to the debugging interface.

Yee discloses a method of communicating the breakpoint to the debugging interface (column 4, lines 35-41).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the debugging interface as described by Yee in the method described by Moyer. It would have been obvious because the debugging interface allows the peripheral device to talk to the processor and notify it of breakpoints (column 4, lines 35-41).

As per claim 7, Yee discloses a method further comprising analyzing by the debugging interface states of the task prior to encountering the set breakpoint (column

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4, line 65- column 5, line 5).

As per claim 8, Moyer discloses a method further comprising resuming the task by the debugging interface (column 1, lines 35-37).

As per claim 9, Moyer discloses a computer readable medium having instructions to instruct a computer to:

check a status of the set of breakpoints at predetermined intervals (column 1, lines 23-37; Note: the status of the breakpoints is checked when the program runs into a breakpoint); and

respond to a request for suspend and resume (column 1, lines 23-37).

Moyer fails to disclose a debugging interface.

Yee discloses a computer readable medium having instructions to instruct a computer to:

expose a set of breakpoints through a debugging interface of an execution environment (column 4, lines 35-41).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the debugging interface as described by Yee in the method described by Moyer. It would have been obvious because the debugging interface allows the peripheral device to talk to the processor and notify it of breakpoints (column 4, lines 35-41).

Claims 16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yee in view of Moyer.

Yee is relied upon for reasons stated in the previous section.

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As per claim 16, Yee fails to disclose resuming a suspended object model component.

Moyer discloses a method comprising resuming a suspended object model component (column 1, lines 35-37).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the resume function as described by Moyer in the method described by Yee. It would have been obvious because resuming operations is a typical method used in debugging to allow for multiple breakpoints. The object continues operation until another breakpoint is found.

As per claim 18, Yee discloses a system to debug breakpoints in pluggable components comprising:

a debugging interface, the debugging interface capable of communicating with the pluggable components during run time to observe component behavior and to control components (column 4, lines 35-41 and lines 52-64); and

breakpoints, the breakpoints being set in the pluggable components such that during run-time when a break point is encountered, the debugging interface is capable of suspending operations of the pluggable components to observe pluggable component operations (column 4, lines 52-64).

Yee fails to disclose a system where the operations can be resumed.

Moyer discloses a system where the operations can be resumed (column 1, lines 35-37).

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It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the resume function as described by Moyer in the method described by Yee. It would have been obvious because resuming operations is a typical method used in debugging to allow for multiple breakpoints. The object continues operation until another breakpoint is found.

As per claim 19, Yee discloses a system wherein the debugging interface sets the breakpoints in the pluggable components (column 4, lines 52-64).

As per claim 20, Yee discloses a system wherein the debugging interface displays states of the pluggable components during suspension (column 2, lines 16-21).

Yee anticipates a system wherein the debugging interface displays states of the pluggable components during run-time (column 1, lines 22-43; Note: tracing is performing the function of displaying states during run-time).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David G. Gentry whose telephone number is (571) 272-2570. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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